SECRET

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UNITED STATES GOVERNMENT

Memorandum

TO

DAD/IO

DATE:

28 June 1965

FROM

DAD/S&D

SUBJECT:

Carl, I view the operation of the antenna on these lines: the energy from the feed element is reflected by T₁ and this energy must be reflected back phase with that which exists at the virtual aperature located at R. In the case of a parabolic antenna the reflector is so shaped that the physical distance results in a generally in-phase condition at this virtual aperature, or feed point R. In the case of this design, however, it seems to me that the size and spacing of surface of T₂ (and any other surfaces that might be added) constitutes a stepwise approach to the continuum represented by the reflector surface of the parabola.

This type of design, however, would seem to permit easier construction which appears to be the basic reason for reduced cost and simplicity.